SEQUENCE LISTING
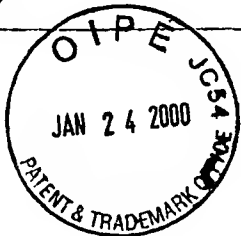
(1) GENERAL INFORMATION:

    (i) APPLICANT: Borts, Tracy L.
               Broderick, Carol L.
               DiMarchi, Richard D.
               Grinnell, Brian W.
               Miller, Anne R.

   (ii) TITLE OF INVENTION: DIABETES THERAPY

  (iii) NUMBER OF SEQUENCES: 9

   (iv) CORRESPONDENCE ADDRESS:
       (A) ADDRESSEE: Eli Lilly and Company
       (B) STREET: Lilly Corporate Center
       (C) CITY: Indianapolis
       (D) STATE: Indiana
       (E) COUNTRY: USA
       (F) ZIP: 46285

    (v) COMPUTER READABLE FORM:
       (A) MEDIUM TYPE: Floppy disk
       (B) COMPUTER: IBM PC compatible
       (C) OPERATING SYSTEM: PC-DOS/MS-DOS
       (D) SOFTWARE: PatentIn Release #1.0, Version #1.30

   (vi) CURRENT APPLICATION DATA:
       (A) APPLICATION NUMBER: US 09/091,605
       (B) FILING DATE: 16-JUN-1998
       (C) CLASSIFICATION:

  (viii) ATTORNEY/AGENT INFORMATION:
       (A) NAME: Davis, Steven G.
       (B) REGISTRATION NUMBER: 39,652
       (C) REFERENCE/DOCKET NUMBER: X-9872

   (ix) TELECOMMUNICATION INFORMATION:
       (A) TELEPHONE: (617) 250-1833
       (B) TELEFAX: (617) 354-6355

(2) INFORMATION FOR SEQ ID NO:1:

    (i) SEQUENCE CHARACTERISTICS:
       (A) LENGTH: 31 amino acids
       (B) TYPE: amino acid
       (C) STRANDEDNESS: single
       (D) TOPOLOGY: linear

   (ii) MOLECULE TYPE: protein

   (ix) FEATURE:
       (A) NAME/KEY: Modified-site

(B) LOCATION: 2
            (D) OTHER INFORMATION: /note= "Xaa at position 2 is Ala,
Gly, Val, Thr, and Ile"

      (ix) FEATURE:
            (A) NAME/KEY: Modified-site
            (B) LOCATION: 15
            (D) OTHER INFORMATION: /note= "Xaa at position 15 is Glu,
Gln, Ala, Thr, Ser, and Gly"

      (ix) FEATURE:
            (A) NAME/KEY: Modified-site
            (B) LOCATION: 20
            (D) OTHER INFORMATION: /note= "Xaa at position 20 is Lys,
and Arg"

      (ix) FEATURE:
            (A) NAME/KEY: Modified-site
            (B) LOCATION: 21
            (D) OTHER INFORMATION: /note= "Xaa at position 21 is Glu,
Gln, Ala, Thr, Ser, and Gly; and,"

      (ix) FEATURE:
            (A) NAME/KEY: Modified-site
            (B) LOCATION: 31
            (D) OTHER INFORMATION: /note= "Xaa at position 31 is
Gly-OH or is absent"

      (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1:

      His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Xaa Gly
      1   5   10   15

      Gln Ala Ala Xaa Xaa Phe Ile Ala Trp Leu Val Lys Gly Arg Xaa
                  20   25   30

(2) INFORMATION FOR SEQ ID NO:2:

      (i) SEQUENCE CHARACTERISTICS:
            (A) LENGTH: 93 base pairs
            (B) TYPE: nucleic acid
            (C) STRANDEDNESS: single
            (D) TOPOLOGY: linear

      (ii) MOLECULE TYPE: cDNA

      (ix) FEATURE:
            (A) NAME/KEY: CDS
            (B) LOCATION: 1..93

      (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2:

CAT GCT GAA GGG ACC TTT ACC AGT GAT GTA AGT TCT TAT TTG GAA GGC   48
His Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly

```
             1                    5                    10                        15
        CAA GCT GCC AAG GAA TTC ATT GCT TGG CTG GTG AAA GGC CGA GGA                    93
        Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Gly
                         20                    25                    30
```

(2) INFORMATION FOR SEQ ID NO:3:

      (i) SEQUENCE CHARACTERISTICS:
          (A) LENGTH: 31 amino acids
          (B) TYPE: amino acid
          (D) TOPOLOGY: linear

      (ii) MOLECULE TYPE: protein

      (xi) SEQUENCE DESCRIPTION: SEQ ID NO:3:

```
        His Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
         1                    5                    10                    15

        Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Gly
                         20                    25                    30
```

(2) INFORMATION FOR SEQ ID NO:4:

      (i) SEQUENCE CHARACTERISTICS:
          (A) LENGTH: 93 base pairs
          (B) TYPE: nucleic acid
          (C) STRANDEDNESS: single
          (D) TOPOLOGY: linear

      (ii) MOLECULE TYPE: cDNA

      (ix) FEATURE:
          (A) NAME/KEY: CDS
          (B) LOCATION: 1..93

      (xi) SEQUENCE DESCRIPTION: SEQ ID NO:4:

```
        CAT GTT GAA GGG ACC TTT ACC AGT GAT GTA AGT TCT TAT TTG GAA GGC                    48
        His Val Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
         1                    5                    10                    15

        CAA GCT GCC AAG GAA TTC ATT GCT TGG CTG GTG AAA GGC CGA GGA                    93
        Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Gly
                         20                    25                    30
```

(2) INFORMATION FOR SEQ ID NO:5:

      (i) SEQUENCE CHARACTERISTICS:
          (A) LENGTH: 31 amino acids
          (B) TYPE: amino acid
          (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: protein

        (xi) SEQUENCE DESCRIPTION: SEQ ID NO:5:

His Val Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1   5   10   15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Gly
              20   25   30

(2) INFORMATION FOR SEQ ID NO:6:

        (i) SEQUENCE CHARACTERISTICS:
            (A) LENGTH: 105 base pairs
            (B) TYPE: nucleic acid
            (C) STRANDEDNESS: single
            (D) TOPOLOGY: linear

        (ii) MOLECULE TYPE: cDNA

        (xi) SEQUENCE DESCRIPTION: SEQ ID NO:6:

GACATGCTGA AGGGACCTTT ACCAGTGATG TAAGTTCTTA TTTGGAAGGC CAAGCTGCCA   60

AGGAATTCAT TGCTTGGCTG GTGAAAGGCC GAGGATAGGG ATCCC   105

(2) INFORMATION FOR SEQ ID NO:7:

        (i) SEQUENCE CHARACTERISTICS:
            (A) LENGTH: 109 base pairs
            (B) TYPE: nucleic acid
            (C) STRANDEDNESS: single
            (D) TOPOLOGY: linear

        (ii) MOLECULE TYPE: cDNA

        (xi) SEQUENCE DESCRIPTION: SEQ ID NO:7:

CTAGGGGATC CCTATCCTCG GCCTTTCACC AGCCAAGCAA TGAATTCCTT GGCAGCTTGG   60

CCTTCCAAAT AAGAACTTAC ATCACTGGTA AAGGTCCCTT CAGCATGTC   109

(2) INFORMATION FOR SEQ ID NO:8:

        (i) SEQUENCE CHARACTERISTICS:
            (A) LENGTH: 105 base pairs
            (B) TYPE: nucleic acid
            (C) STRANDEDNESS: single
            (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:8:

GACATGTTGA AGGGACCTTT ACCAGTGATG TAAGTTCTTA TTTGGAAGGC CAAGCTGCCA   60

AGGAATTCAT TGCTTGGCTG GTGAAAGGCC GAGGATAGGG ATCCC   105

(2) INFORMATION FOR SEQ ID NO:9:

        (i) SEQUENCE CHARACTERISTICS:
            (A) LENGTH: 109 base pairs
            (B) TYPE: nucleic acid
            (C) STRANDEDNESS: single
            (D) TOPOLOGY: linear

        (ii) MOLECULE TYPE: DNA (genomic)

        (xi) SEQUENCE DESCRIPTION: SEQ ID NO:9:

CTAGGGGATC CCTATCCTCG GCCTTTCACC AGCCAAGCAA TGAATTCCTT GGCAGCTTGG   60

CCTTCCAAAT AAGAACTTAC ATCACTGGTA AAGGTCCCTT CAACATGTC   109